

IN THE CLAIMS:

1-23. (Canceled)

24. (Currently Amended) A method of removing fruit from a plant, comprising connecting drive means to the plant to apply vibrations thereto, wherein the vibrations have ~~an amplitude and/or a frequency and/or phase which varies with time~~ can be controlled, and sweeping the frequency of the vibrations linearly or non-linearly from an initial sweep frequency to a final sweep frequency.

25. (Previously Presented) A method according to claim 24, wherein the vibrations are substantially unidirectional.

26. (Currently Amended) A method according to claim 24, wherein the vibrations are applied to the plant substantially normally to ~~the a~~ longitudinal axis of the plant.

27. (Currently Amended) A method according to claim 24, ~~wherein one or more sensors measures the~~ including measuring acceleration and/or or displacement of the vibrations using at least one sensor.

28. (Currently Amended) A method according to claim 27, further comprising the step of adjusting at least one of the frequency, ~~and/or~~ phase ~~and/or~~ amplitude of the vibrations in dependence on ~~the sensor information~~ measurement.

29. (Currently Amended) A method according to claim 24, ~~wherein~~ including manually adjusting at least one of the amplitude and/or

frequency, ~~and/or amplitude and phase of the vibrations is adjustable~~  
manually.

30. (Cancel)

31. (Currently Amended) A method according to claim ~~30~~ 24, wherein the initial sweep frequency is higher than the final sweep frequency.

32. (Currently Amended) A method according to claim ~~30~~ 24, wherein the initial sweep frequency is lower than the final sweep frequency.

33. (Currently Amended) A method according to claim ~~30~~ 24, wherein the vibrations include a modulation component which has a much lower frequency than the sweep frequency.

34. (Previously Presented) A method according to claim 24, further comprising the step of limiting the range of frequencies of the vibrations by means of a band pass filter.

35. (Previously Presented) A method according to claim 34, further comprising the step of omitting frequencies from the vibrations which cause leaf detachment from the tree.

36. (Currently Amended) A device for removing fruit from a plant comprising:

a vibratory head having means for clamping a fruit plant to apply vibrations to the plant, and means for controlling the vibratory head to vibrate at a frequency which sweeps linearly or non-linearly from an initial sweep frequency to a final sweep frequency,

the vibratory head further comprising at least one reaction mass which is vibratably driveable and connected to the clamping means for relative movement therebetween to provide a unidirectional force transmittable between the reaction mass and the clamping means, and hence transmittable to the plant, wherein the vibrations have an amplitude and/or frequency and/or phase which varies with time.

37. (Currently Amended) A device according to claim 36, wherein the control means comprise electronic control means ~~for controlling which~~ also controls at least one of the amplitude and/or frequency and/or phase of the vibrations.

38. (Currently Amended) A device according to claim 36, wherein the or each reaction mass comprises at least one of a hydraulic cylinder and/or piston.

39. (Previously Presented) A device according to claim 38, wherein the hydraulic piston and cylinder are driven by pressurised fluid which is selectively applied to chambers of the hydraulic cylinder by a valve.

40. (Previously Presented) A device according to claim 38, wherein the reaction mass comprises a piston.

41. (Previously Presented) A device according to claim 38, wherein the reaction mass comprises a cylinder.

42. (Currently Amended) A device according to claim 38, ~~wherein the drive means has~~ including two cylinders and two pistons.

43. (Currently Amended) A device according to claim 38, ~~wherein the drive means has~~ including more than two pistons and cylinders arranged orthogonally to one another for placement around ~~the~~ a trunk or branch of the plant and driveable sequentially.

44. (Previously Presented) A device according to claim 36, wherein the vibrations of the or each reaction mass are substantially unidirectional.

45. (Previously Presented) A device according to claim 36, wherein the vibratory force is applied to the plant substantially normally to the longitudinal axis of the plant.

46. (Currently Amended) A device according to claim 36, further comprising sensors for measuring at least one of the acceleration, ~~and/or~~ velocity, ~~and/or~~ displacement of the vibrations.

47. (Previously Presented) A device according to claim 46, wherein the frequency and/or phase and/or amplitude of the vibrations of the reaction mass are adjustable in dependence on the sensor information.

48. (Previously Presented) A device according to claim 36, wherein the control means are manually adjustable.

49. (Previously Presented) A device according to claim 36, wherein the frequency of the vibrations is swept linearly or non-linearly from an initial sweep frequency to a final sweep frequency.

50. (Previously Presented) A device according to claim 49, wherein the initial sweep frequency is higher than the final sweep frequency.

51. (Previously Presented) A device according to claim 49, wherein the initial sweep frequency is lower than the final sweep frequency.

52. (Previously Presented) A device according to claim 36, wherein the vibrations include a modulation component which has a much lower frequency than the sweep frequency.

53. (Previously Presented) A device according to claim 36, wherein the frequency range is limited by a band pass filter.

54. (Previously Presented) A device according to claim 36, wherein frequencies which cause leaf detachment from the tree are substantially omitted from the vibrations.

55. (Previously Presented) A device according to claim 38, wherein the vibratory head is mounted on carrying means with respect to which the vibratory head is independently movable.

56. (Previously Presented) A device according to claim 38, wherein the drive means utilises electromagnetic or pneumatic force to oscillate the reaction mass.